

I claim:

Sub 48/ 1. A method for diverting articles selected for removal from
a stream of articles travelling along a pathway on a conveyor,
said method comprising the steps of:

5 locating adjacent said pathway a deflector member adapted to
rotate into said pathway to contact and controllably sweep
selected articles from said stream of articles;

10 following removal of each selected article from said stream
further rotating said deflector member thereby removing same
out of said pathway to allow subsequent non-selected
articles in said stream to continue along said pathway
without being impeded by said deflector member; and

15 adapting a synchronous motor to act in response to a
predetermined signal to cause the said rotations of said
deflector member.

2. A method for diverting beverage containers selected for
removal from a stream of beverage containers travelling along a
20 pathway on a conveyor, said method comprising the steps of:

25 locating adjacent said pathway a deflector member adapted to
rotate into said pathway to contact and controllably sweep a
selected beverage container from said stream of articles;

following removal of each selected beverage container from said
stream, reversing the rotation of said deflector member thereby

removing same out of said pathway to allow subsequent non-
selected beverage container in said stream to continue along said
pathway without being impeded by said deflector member; and
adapting a synchronous motor to act in response to a
predetermined signal to cause the said rotations of said
deflector member.

3. The method according to Claim 1 or 2 wherein said
deflector member is adapted to initially contact said article at
about a centre of gravity thereof.

4. The method according to Claim 1 or 2 wherein said
deflector member is adapted to initially contact said article at,
or in a zone, immediately adjacent to and below, a centre of
gravity thereof.

5. The method according to Claim 1 or 2 wherein the degree
of and/or the speed of rotation of the deflector is variable and
is determined by the predetermined signal to achieve a desired
lateral movement of the article from the stream of the selected
articles.

6. The method according to Claim 4 wherein said signal
originates from a sensing device and which identifies a specific
condition selecting the article for rejection.

no criteria for ejecting - general recitation only

7. The method according to Claim 1 or 2 where the article is a beverage container.

Sub Q97 8. A device for diverting an article selected for removal from a stream of articles travelling along a pathway on a conveyor said device comprising in combination a synchronous electric motor and an article deflector member, the latter being adapted to be:

- (i) located adjacent said pathway;
- (ii) rotatable by said motor into said pathway to contact and controllably sweep a selected article from said stream and,
- (iii) rotatable by said motor out of said pathway to allow subsequent unselected articles to continue travelling along said pathway without contacting said deflector member,

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9. The device according to Claim 8 wherein the article deflector member is mounted directly on to a drive shaft of said motor.

5 10. The device according to Claim 9 wherein the article deflector member is elongate and is rotatable in a horizontal manner about a vertical axis.

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10 11. The device according to Claim 9 wherein said motor is adapted to rotate said deflector member out of said pathway by rotating same in a reverse direction to said first rotation.

12. The device according to Claim 8 which is provided with bracket means to secure same to an associated conveyor.

15 13. The device according to Claim 11 wherein said bracket means is provided with adjusting means adapted to allow the position of said article deflector means to be varied in a vertical and/or horizontal position relative to said pathway of said associated conveyor.

20 14. A device for diverting an article selected for removal from a stream of articles travelling along a pathway on a conveyor said device comprising in combination a conveyor, a synchronous electric motor and an article deflector member, the latter being
25 located adjacent said pathway and rotatable by said motor into

said pathway to contact and controllable sweep a selected article from said stream and rotatable by said motor out of said pathway to allow subsequent unselected articles to continue travelling along said pathway without contacting said deflector member.

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Pub B, 7 15. The device according to Claim 14 wherein the article deflector member is elongate and is rotatable horizontally about a vertical axis to extend over said pathway.

10 16. The device according to Claim 14 or 15 wherein said motor is adapted to rotate said deflector member out of said pathway by rotating same in a reverse direction to said first rotation.

Sub B, 7 17. The device according to Claim 14 or 15 which is provided with bracket means to secure said deflector member to said conveyor.

15 18. The device according to Claim 14 wherein said bracket means is provided with adjusting means adapted to allow the position of
20 said article deflector means to be varied in a vertical and/or horizontal position relative to said pathway of said conveyor.

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